

**LOCAL GOVERNMENTAL ENTITIES & OTHER STATE AGENCIES  
SPECIFICATIONS & SPECIAL PROVISIONS  
FOR TREATED/UNTREATED SODIUM CHLORIDE**

These specifications and terms and conditions apply to other governmental bodies and other state agencies that are listed within this solicitation. *These specifications will not apply to INDOT locations in this solicitation.*

Other governmental bodies is defined as follows: an agency, board, branch bureau, commission, council, department, institution, office or establishment of (a) the judicial branch, (b) the legislative branch, (c) a political subdivision, which includes towns, cities, school corporations and local governments, (d) a state educational institution.

**Scope of Services**

The material to be furnished shall consist of sodium chloride delivered at Contractor's expense to various Buyer facilities. This rock salt shall be used as a deicer for road maintenance.

*Untreated* sodium chloride shall be rock salt conforming to the requirements of the 2014 Indiana Department of Transportation Standard Specifications, Section 913.03, (or latest revision and any Supplemental Specifications), AASHTO M 143, and to the other requirements contained within these specifications. All material furnished shall contain a chemical to prevent caking, and shall be free of foreign matter, lumps, and free water.

*Treated* sodium chloride shall be the same rock salt as stated above, 2014 Indiana Department of Transportation Standard Specifications, Section 913.03, (or latest revision and any Supplemental Specifications,) AASHTO M 143 treated with a combination of magnesium chloride and corrosion resistant products in accordance with the specifications contained herein. The Chemical to prevent caking is not needed for treated salt.

Rejection - All sodium chloride delivered will be visually inspected by Buyer at the time of delivery and samples may be tested for gradation purity, leaching and moisture content.

Any material delivered which contains lumps, foreign matter, or free water, or otherwise fails to conform to the requirements contained herein, shall be rejected. In the event the material has been dumped prior to rejection it shall be immediately reloaded or removed by the Contractor within forty-eight (48) hours of notification of rejection. Buyers shall not be responsible for either the cost of rejected material or the cost to dispose of rejected material not picked up by Contractor within forty-eight (48) hours of the rejection. Buyers reserve the right to offset those costs against any future payments to Contractor at a rate of \$10.00 per ton for each day the salt remains on the district locations.

In the event untreated sodium chloride is added to the stockpile prior to testing, deductions will be made for untreated sodium chloride that does not comply with the following specifications:

a. Chemical Composition

Results of the purity test will be rounded to the nearest whole percentage point (0.5 rounded up). A deduction of \$1.00 (one dollar) per ton will be made for each percentage point from ninety-four percent (94%) through ninety percent (90%) and \$2.00 (two dollars) per ton for each percentage point from eighty-nine percent (89%) through eight-five percent (85%). Material with purity less than eighty-four point five percent (84.5%) will be paid for as snow and ice abrasives at a rate of \$4.00 (four dollars) per ton.

b. Moisture

If the moisture content of untreated sodium chloride exceeds two percent (2%), the weight to be paid for will be the gross weight of the sodium chloride minus twice the weight of the excess moisture computed as follows:  $G \times (104 - 2(m)) / 100$

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G = Gross weight of material (wet)

M = Percent of moisture to the nearest 0.5 percent based on oven dry weight

### c. Gradation

Percents passing the given sieve sizes shall be as follows:

Sieve Sizes	Percent Passing
½ inch (12.5mm)	100
3/8 inch (9.5 mm)	95 - 100
No. 4 (4.75 mm)	20 - 95
No. 8 (2.36 mm)	10 - 65
No. 30 (0.60 mm)	0 - 20

When test results for the sodium chloride furnished exceed the gradation requirements above, adjustment points will be assessed as follows:

#### ADJUSTMENT POINTS FOR GRADATION

Adjustment Points	Sieve Size				
	½in.	3/8in.	No.4	No.8	No.30
	12.5mm	9.5mm	4.75mm	2.36mm	0.60mm
For each 1.0% up to 3.0%					
Out of Tolerance	1.0	1.0	1.0	1.0	3.0
For each 1.0% > 3.0%					
Out of Tolerance	1.0	1.0	1.0	1.0	6.0

Gradation adjustment points for the quantity represented shall be the sum of points calculated for up to 3% out of tolerance and the points calculated for greater than 3% out of tolerance.

Where Buyers determine that a sample does not meet specifications in chemical composition, moisture and/or gradation, the following shall be the method of determining the final price per ton: First, tons eligible for payment shall be calculated above. Moisture: Second, a deduction, as specified above, will be made for gradation failure. Finally, the deduction will be determined for chemical composition, unless the chemical composition falls below 84.5 percent at which time the entire amount will be paid for as snow and ice abrasives as noted above.

### Specifications for Treated Sodium Chloride

The treatment method must allow for a completely uniform treatment of the sodium chloride *by Contractor* before the sodium chloride reaches Buyer property. The treatment process for the sodium chloride must follow all federal, state, and local laws and regulations. This sodium chloride shall be the same sodium chloride specified above, but containing an additional treatment consisting of a combination of magnesium chloride and corrosion resistant products. The liquid treatment (final product) must contain a percentage of magnesium chloride solution and a percentage of corrosion resistant products acceptable to the Buyer. This product must exhibit corrosion resistance in accordance with the standards of the Pacific Northwest Snowfighters (PNS) Association, as provided below. This product must be actively

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marketed and sold as a treatment for sodium chloride stockpiles, and must provide for some or all of the following benefits related to deicing:

- A. Increased corrosion resistance over regular sodium chloride.
- B. Increased penetration of sodium chloride in snow and ice pack.
- C. Reduced “bounce & scatter” of sodium chloride from the roadway (applied with spreader equipment).
- D. Increase in the *residual effects* of sodium chloride applications.
- E. Increase in the effective temperature range of sodium chloride.

The treatment must allow for safe and effective use of the sodium chloride in conventional sodium chloride spreader equipment found on highway trucks. When treated according to the manufacturer’s instructions and at the designated application rate, the finished sodium chloride product shall result in no leaching, and shall not result in freezing or clumping of the sodium chloride in either storage or application.

The product is preferred to be a tested and proven brand that has been on the market and sold for at least one year (or one winter season). Contractor shall submit with the bid official testing data and literature that verifies that the product meets specifications. Buyer may also grab test Contractor’s product to determine compliance with specifications. To the extent there is a conflict between Contractor’s testing data and the Buyer’s test results, the Buyer may, in its sole discretion, choose which results to rely on. Contractor shall submit any samples upon request by the Buyer at no Cost to the Buyer. References for municipalities that have successfully used this product, as a sodium chloride pile treatment in the recent past shall also be submitted. Buyer reserves the right to use or test new products that has been on the market less than a year.

### Testing Data

Contractor shall submit testing data indicating that the liquid treatment product meets the following. (Note: This applies to the liquid treatment only and not the final sodium chloride product):

### Environmental

The product offered must comply with established limits set by federal, state and local laws and regulations with regard to the following components. In addition, the product must comply with any other environmental laws or regulations when used in the recommended application and at the manufacturer’s recommended application rate. Contractor shall include the test methods and testing results for each of these components:

Phosphorus	yes	no	% mass	% volume
Cyanide	yes	no	% mass	% volume
Arsenic	yes	no	% mass	% volume
Copper	yes	no	% mass	% volume
Lead	yes	no	% mass	% volume
Mercury	yes	no	% mass	% volume
Chromium	yes	no	% mass	% volume
Cadmium	yes	no	% mass	% volume
Barium	yes	no	% mass	% volume
Selenium	yes	no	% mass	% volume
Zinc	yes	no	% mass	% volume

### Testing data formulation

pH Test	The pH shall be in the range of 3-9. ASTM E 70, except that a dilution shall be made of 1 part deicer to 4 parts distilled water before attempting a reading.
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Sulfate Level in MgCl <sub>2</sub>	Maximum Sulfate: 2% Gravimetric analysis as described in "Standard Methods for the Examination of Water and Waste Water," 17 Edition, 1989, APHA-AWWA-WPCF (Method 4500). If an alternate method is used, please cite method.
Corrosion Rate	At least 70% less corrosive than common road salt. The product must meet the <i>National Association Corrosion Engineers (NACE)</i> Standard TM-01-69 (1976 revision) as modified by the PNS Association. (PNS establishes the standards for deicers for areas in the Pacific Northwest including Oregon, Washington, Montana, Idaho and British Columbia.)
The Modified NACE Standard	The NACE standard TM-01-69 (current rev.) requires the use of 30 milliliters of 3% solution per square inch of coupon surface for corrosion testing. (This test requires the solution to be at least 70% less corrosive than sodium chloride.) The manufacturer shall provide laboratory results demonstrating that the liquid treatment product, as presently used, has passed this standard.
Weight per Gallon	Approximately 10-11 lbs. per gallon. ASTM D 1429 for Specific Gravity (Test Method A – Pycnometer at 20° C +/- 1° C) or other industry standard method.
Settleable Solids	The total settleable solids shall be no more than 4% and 99% of product should pass through a #10 sieve after being stored at -10° F for 168 hours. Contractor shall cite test method used.

### Delivery

Contractor shall make deliveries of treated and untreated sodium chloride in trucks with solid or waterproof tarps to various locations as defined in Bid List.xls. Delivery shall be made within 7-9 calendar days after receipt of order. All deliveries must be coordinated with the local governmental entity and/or state agency prior to delivery.

For each working day where no delivery has been made that extends beyond the 9 day limit, \$200.00 will be deducted from any money due the vendor, not as a penalty, but as liquidated damages. Prior deliveries arrangements shall be made between the ordering entity and the winning contractor. No payments will be made for any load for which a delivery ticket, signed by a Buyer representative, cannot be produced.

The delivery tickets shall be meter printed and shall indicate the gross, tare, and net weights, order number, the location of the stockpile from which shipment is made, the point of delivery, and signature of scale operator. Weights will be checked at random to determine accuracy of the delivery ticket weights. Buyers reserve the right to require any truck to go to the nearest available certified scales to verify load weights on the trucks at no cost to the Buyer.

Payment for all sodium chloride shall be by the contract per ton price (either untreated or treated) furnished and delivered to the various locations as designated. There shall be no other charges.

Request for payment on deliveries shall be made monthly for all materials furnished to Buyer and all details surrounding the billing and payment shall be between the governmental entity and/or state agency and the contractor.

### Pricing

The State of Indiana is requesting bid prices as specified in Bid List.xls. Delivered price is the price per ton of salt delivered to the specified local entities and state agencies. Price submitted by respondent is the price for purchases from 0% to the maximum of the commitment range as specified in Bid List.xls. *Any additional tons needed beyond the maximum commitment range will be by mutual agreement of the parties, including the price thereof.*

Local governmental entities and other state agencies commit to purchase at least 80% of the total tonnage; quantity in Bid List.xls is 100%. Local Governmental Entities are individually-operated entities responsible for their individual

quantities committed as listed in Bid List.xls. Respondents cannot bid on specific locals within an INDOT district; if respondent is awarded local governmental entities' business for an INDOT district, the awarded vendor will hold supply up to 120% for each local governmental entity listed in the INDOT district awarded and 120% for untreated salt and 120% for treated salt for each other state agency in the INDOT district awarded.

## **DEFINITIONS AND TERMS**

For the purposes of this contract, calendar day and work day shall be defined as:

Calendar Day. Every day shown on the calendar.

Work Day. A calendar day, exclusive of Saturdays, Sundays and State recognized legal holidays.

## **REFERENCED**

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS 2014 (With Supplemental Specifications in affect at time of letting)

<http://www.in.gov/dot/div/contracts/standards/book/index.html>

## **SECTION 913 – MISCELLANEOUS**

(913.03 Sodium Chloride. Sodium chloride shall be in accordance with AASTHO M 143). Rock salt shall be used for de-icing purposes. Either rock salt or evaporated salt may be used for stabilization.

## **Failure to Meet Obligations**

If the vendor is unable to meet its agreement obligations as set out in this invitation, the local governmental entity and state agency at its option, may purchase material from any other available source on the open market, may cancel the agreement or applicable portions thereof, and may award the portions so cancelled to another supplier. In the event the State must resort to any of the above procedure, the vendor shall be required to reimburse the local governmental entity and/or state agency for any expense incurred in excess of the agreement price.